

# **APPENDIX D**

**(VERSION OF CLAIMS AS AMENDED HEREIN  
WITH MARKINGS TO SHOW CHANGES MADE)**

**(Serial No. 09/590,621)**

## Version of Claims with markings to show changes made

1. (amended) A method of forming a flip-chip semiconductor die, comprising:  
providing at least one flip-chip semiconductor die having an active surface; and  
forming at least one stabilizer securable to said active surface so as to protrude from said active surface, said at least one stabilizer being configured to at least partially stabilize an orientation of said at least one flip-chip semiconductor die when disposed [face-down]face down over a higher level substrate.

13. (amended) The method of claim 1, further comprising introducing an encapsulant material between said at least one flip-chip semiconductor die and said substrate.

17. (amended) The method of claim 15, wherein said disposing comprises applying one of a conductive pillar, a conductor filled epoxy pillar, and a structure of [Z]z-axis elastomer to said at least one bond pad.

18. (amended) A method of fabricating a semiconductor device component, comprising:  
providing at least one substrate with contact pads on an active surface thereof; and  
sequentially forming on said active surface at least one stabilizer having a plurality of superimposed, contiguous, mutually adhered layers of photopolymer, said at least one stabilizer being configured to at least partially stabilize an orientation of the semiconductor device component upon being disposed face[-]down over a higher level substrate.

19. (amended) A method of fabricating a semiconductor device component, comprising:  
placing at least one substrate having an active surface with contact pads exposed thereon in a horizontal plane;  
recognizing a location and orientation of said at least one substrate;  
stereolithographically forming on said active surface, between one of said contact pads and a peripheral edge of said at least one substrate, at least one stabilizer comprising at least one layer of semi[-]solid material.

20. (amended) The method of claim 19, further comprising storing data including at least one physical parameter of said at least one substrate in computer memory, and using the stored data in conjunction with a machine vision system to recognize [the]said location and orientation of said at least one substrate and to form [the]said at least one stabilizer thereon.

22. (amended) The method of claim 20, further comprising using the stored data, in conjunction with said machine vision system, to selectively form said at least one layer of semi[-]solid material stereolithographically on at least one portion of said active surface of said at least one substrate.

27. (amended) The semiconductor device component of claim 24, wherein said at least one stabilizer comprises a dielectric material.

28. (amended) The semiconductor device component of claim 24, wherein said at least one stabilizer comprises a photocurable material.

29. (amended) The semiconductor device component of claim 28, wherein said at least one stabilizer has a plurality of superimposed, contiguous, mutually adhered layers.

32. (amended) The semiconductor device component of claim 24, wherein said at least one stabilizer is elongatedin a direction parallel to [the]said active surface.

34. (amended) The semiconductor device component of claim 33, wherein said conductive structures comprise at least one of solder bumps, conductive columns, conductor-filled columns, and z-axis conductive adhesive.

36. (amended) A method for electrically bonding a flip-chip semiconductor device component having a surface and conductive structures protruding from said surface to a substrate having contacts positioned correspondingly to [the]said conductive structures, said method comprising:  
forming at least one stabilizer configured to be disposed between [the]said surface and [the]said substrate;  
inverting and positioning [the]said semiconductor device component on [the]said substrate to contact said conductive structures to corresponding contacts; and  
bonding [the]said conductive [members]structures to the corresponding contacts.

37. (amended) The method of claim 36, wherein said forming at least one stabilizer comprises forming said at least one stabilizer to have a height less than [the]a minimum distance [the]said conductive structures protrude from said surface.

38. (amended) The method of claim 36, wherein said forming at least one stabilizer comprises forming said at least one stabilizer to space [the]said surface from [the]said substrate a distance greater than [the]a minimum distance at least one of [the]said conductive structures protrudes from [the]said surface.

39. (amended) The method of claim 38, wherein said bonding comprises lengthening at least one of [the]said conductive structures.

40. (amended) The method of claim 36, wherein said forming at least one stabilizer comprises configuring [the]said at least one stabilizer to be positioned between a periphery of [the]said surface of [the]said semiconductor device component and said conductive structures.